

Appendix table 5-1

Higher education R&D expenditures, by R&D field: FYs 2005–12

(Dollars in thousands)

Field	2005	2006	2007	2008	2009	2010	2011	2012
All R&D fields ^a	47,535,201	49,645,341	51,590,017	54,113,750	57,288,415	61,257,398	65,274,235	65,774,524
Science	39,030,577	40,663,615	41,977,651	43,914,300	46,214,473	49,031,326	51,952,691	51,963,778
Computer sciences	1,404,105	1,443,055	1,430,660	1,471,454	1,600,447	1,637,931	1,740,416	1,821,482
Environmental sciences	2,554,468	2,601,097	2,681,473	2,798,750	2,923,404	2,991,911	3,159,158	3,172,613
Atmospheric sciences	460,020	507,583	446,184	423,055	416,826	429,355	480,762	476,210
Earth sciences	919,718	897,499	910,886	950,631	1,019,429	1,085,000	1,139,823	1,166,960
Oceanography	812,061	839,504	992,484	1,051,136	1,077,634	1,021,961	1,049,765	1,021,715
Environmental sciences nec	362,669	356,511	331,919	373,928	409,515	455,595	488,808	507,728
Life sciences	27,604,138	28,803,658	29,805,328	31,192,916	32,778,944	34,949,394	37,319,252	37,215,163
Agricultural sciences	2,656,770	2,796,961	2,913,260	2,995,518	3,055,512	2,986,458	3,112,273	3,296,327
Biological sciences	8,843,679	9,049,032	9,207,593	9,760,099	10,146,059	10,934,309	11,841,831	11,595,919
Medical sciences	14,877,626	15,805,806	16,553,616	17,254,161	18,229,453	19,270,320	20,401,120	20,357,802
Life sciences nec	1,226,063	1,151,859	1,130,859	1,183,138	1,347,920	1,758,307	1,964,028	1,965,115
Mathematical sciences	494,282	532,832	573,070	619,854	546,915	594,254	640,393	674,932
Physical sciences	3,702,783	3,813,770	3,863,269	3,931,833	4,282,795	4,621,945	4,780,886	4,721,131
Astronomy	454,354	469,955	467,604	539,112	578,406	572,517	583,124	706,133
Chemistry	1,371,984	1,414,311	1,460,415	1,486,721	1,582,562	1,749,897	1,784,092	1,750,048
Physics	1,596,290	1,611,248	1,615,766	1,606,997	1,869,890	1,998,184	2,120,737	1,996,446
Physical sciences nec	280,155	318,256	319,484	299,003	251,937	301,347	292,933	268,504
Psychology	825,009	875,641	872,547	925,069	972,319	1,078,419	1,156,794	1,187,582
Social sciences	1,684,610	1,706,003	1,803,115	1,949,741	2,080,953	1,996,708	2,063,212	2,055,807
Economics	324,685	339,800	349,313	398,730	379,720	349,862	387,246	383,224
Political sciences	323,053	317,044	348,310	339,294	368,887	374,444	371,860	391,714
Sociology	370,468	399,697	397,748	403,226	408,444	420,271	432,786	459,757
Social sciences nec	666,404	649,462	707,744	808,491	923,902	852,131	871,320	821,112
Sciences nec	761,182	887,559	948,189	1,024,683	1,028,696	1,160,764	1,092,580	1,115,068
Engineering	6,743,373	7,095,085	7,517,262	7,957,504	8,648,525	9,328,730	10,043,544	10,302,305
Aeronautical/astronautical	445,170	385,254	471,097	537,251	613,828	635,234	667,763	662,221
Bioengineering/biomedical	419,625	477,119	539,137	601,908	648,099	744,124	818,335	878,633
Chemical	505,975	560,005	598,944	655,603	695,842	820,941	918,273	908,969
Civil	787,548	858,346	862,260	924,620	980,451	1,106,954	1,210,306	1,234,326
Electrical	1,581,700	1,615,996	1,636,983	1,704,953	1,844,482	2,053,479	2,209,772	2,314,842
Mechanical	935,302	1,048,506	1,126,726	1,162,428	1,243,910	1,460,936	1,557,472	1,550,936
Metallurgical/materials	612,016	643,244	632,941	646,523	688,225	703,915	738,049	756,843
Engineering nec	1,456,037	1,506,615	1,649,174	1,724,218	1,933,688	1,803,147	1,923,574	1,995,535
Non-S&E ^a	1,761,251	1,886,641	2,095,104	2,241,946	2,425,417	2,897,342	3,278,000	3,508,441
Business and management	220,187	247,335	276,280	329,931	343,916	368,242	399,780	441,705
Communications, journalism, and library science	75,582	84,784	90,832	89,203	107,484	129,891	153,079	159,436
Education	766,416	819,004	905,247	868,830	915,976	994,518	1,115,002	1,229,101
Humanities	192,309	217,263	241,683	246,713	255,289	262,769	312,503	340,628
Law	63,118	69,387	74,809	90,907	107,966	98,122	125,474	131,662
Social work	87,344	89,993	93,540	123,984	138,283	177,376	194,153	199,097
Visual and performing arts	42,135	46,100	46,155	59,285	72,867	66,465	77,478	85,037
Non-S&E nec	314,019	312,774	366,448	432,965	483,636	799,959	900,531	921,775

nec = not elsewhere classified.

^a From FY 2003 through FY 2009, some institution totals for all fields of R&D expenditures may be lower-bound estimates because the National Science Foundation did not attempt to estimate for nonresponse on the non-S&E R&D expenditures item prior to FY 2010.

NOTE: The non-S&E detailed field data may not sum to total non-S&E R&D expenditures because some institutions reporting non-S&E R&D expenditures did not break out total and federal funds by non-S&E fields.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.